CLAIMS

1. A breath monitoring apparatus comprising a housing on which is mounted:

   a) a means to measure the volume of an inhaled breath of the user; and

   b) a means to measure the gas content of an exhaled breath of a user.

2. A breath monitoring apparatus as claimed in Claim 1 wherein the breath monitoring apparatus is a calorimeter.

3. A breath monitoring apparatus as claimed in Claim 1 or Claim 2 wherein the means to measure the volume of an inhaled breath of a user comprises a flow sensor or flow meter.

4. A breath monitoring apparatus as claimed in Claim 3 wherein the flow sensor comprises a moveable member, moveable by air pressure effected thereupon, and a movement sensor associated with the moveable member.

5. A breath monitoring apparatus as claimed in Claim 4 wherein the moveable member is a plunger, slideably mounted within the housing of the apparatus.

6. A breath monitoring apparatus as claimed in Claims 4 or 5 wherein there is a substantially fluid-tight contact between the periphery of the moveable member and the interior surface of the housing.

7. A breath monitoring apparatus as claimed in any preceding claim wherein the means to measure the

volume of inhaled breath of a user comprises a mass flow meter.

8. A breath monitoring apparatus as claimed in any preceding claim wherein the means to measure the gas content of an exhaled breath of a user comprises an oxygen sensor or a carbon dioxide sensor, arranged to measure the oxygen content or carbon dioxide content of the exhaled breath respectively.

9. A breath monitoring apparatus as claimed in any preceding claim comprising an opening in the housing providing for external fluid to be inhaled through the apparatus.

10. A breath monitoring apparatus as claimed in any preceding claim further comprising means to calculate the respiratory oxygen consumption of a user.

11. A method of monitoring breaths, the method comprising the steps of:

a) calculating the volume of an inhaled breath of a user, and

b) calculating the gas content of an exhaled breath of the user.

12. A method as claimed in Claim 11 comprising measuring the volume of a plurality of inhaled breaths of a user and/or measuring the gas content of a plurality of exhaled breaths of a user.

13. A method as claimed in Claim 11 comprising the steps of:

a) measuring the volume of an inhaled breath or a plurality of inhaled breaths of a user;

b) measuring the gas content of an exhaled breath or a plurality of exhaled breaths of a user;

c) storing said measurements as a reference, and repeating steps (a) and (b) and comparing them to the reference.

14. A method of monitoring breaths of any one of Claims 11 to 13 using a breath monitoring apparatus of any one of Claims 1 to 10.